



# Mill Test Certificate

Product: **Seamless Carbon Steel Pipe** Product Heat Number: **BSM-0333** Product Size: **NPS 24 STD** Production Date: **May 17, 2012**

Production Method: **Hot Expansion** Product Heat Treatment: **As-rolled**

Product Standards: **ASTM/ASME A/SA106-2011 Grade B/C, A/SA53-2012 Grade B Type S, NACE MR0175-2009**

Product Markings: **.BRI-STEEL MFG NPS 24 STD ASTM/ASME A/SA106 GR B/C A/SA53 GR B HEAT BSM-0333 (PIPE # LENGTH MASS) 94.62lb/ft NDE 740PSI NACE MR0175 2012/05 MADE IN CANADA.**

Product Details				Non-Destructive Testing											
Heat	Test Type	NPS	SCH	Pieces	Length	Mass	Geiger	Res. Mag.	Visual	OD	UT	UT	ET	HydroTest	End
BSM-0333	Heat	24	STD	7	DRL	94.62	µR/hr	Gauss	Insp.	Pass	Pass	Pass	Pass	Pass	Condition
							<5	<20	Pass	Pass	Pass	---	Pass	Pass	37.5" Bevel

Steelmaking Method		Chemical Analysis (wt%)														
Heat	Test Type	C	Mn	P	S	Si	Cr	Cu	Mo	Ni	V	Ti	Nb	B	CE	CE
BSM-0333	Heat	0.21	0.89	0.013	0.007	0.26	0.04	0.12	0.04	0.04	0.004	0.001	0.002	0.0003	0.39	(CSA)
																0.40

Mechanical Properties										
Heat	Test Type	Hardness	Flattening Test	Tension Test		Yield (Rt0.5)	Yield (Rp0.2)	Tensile (Rm)	Y/T	Elongation (A)
BSM-0333	Heat	HRBW	Pass	50mm GL, 38mm x WT	Transverse	psi	psi	psi	0.58	%
		78		Longitudinal		45,200	45,200	77,500	0.58	40
						47,400	46,700	76,500	0.62	40

Additional Details:

- ✓ We hereby certify that this pipe product was manufactured, sampled, tested and inspected by Bri-Steel Manufacturing Inc. in accordance with ASTM/ASME A/SA106-2011, A/SA53-2012 and the purchase order requirements, and that the results meet the corresponding requirements.
- ✓ This pipe product meet the sour service requirements of NACE MR0175/ISO 15156-2:2009 Annex A2 for Region 3 Sour Service, and NACE MR0103-2010 Section 2.1.
- ✓ No weld repairs have been performed on this product. This product has no mercury contamination.
- ✓ This certificate represents a quality control system that is compliant with EN 10204:2004 Type 3.1.

Mill Test Certificate approved by:

*Kenton Dechant*  
 2012 May 30  
 Kenton Dechant, P.Eng.  
 Manager of Quality and R&D

Bri-Steel Manufacturing Inc.  
 2125-64 Avenue, Edmonton, AB Canada T6P 1Z4  
 Tel: 001 (780) 469-6603  
 Fax: 001 (780) 469-6986  
 www.brichemsteel.com